Patent Claims:

1. An electrical device for self-clocked controlled pseudo random noise (PN) sequence generation and comprising a plurality of sequence generation means (201) adapted to:

- output a plurality of sequence values (Z_t) on the basis of a plurality of clock values (C_t),

characterized in that said electrical device further comprises:

- step pattern generation means (202) adapted to select a step pattern, comprising said plurality of clock values (C_t), from a plurality of possible step patterns on the basis of a step pattern select signal (W_t).

2. An electrical device according to claim 1, characterized in that said step pattern select signal (W_t) is derived on the basis of a combined value (U_t) and one or more previously derived step pattern select signals (W_{t-1}).

3. An electrical device according to claim 2, characterized in that

- said plurality of sequence generation means (201) is further adapted to output a plurality of step control values (u_t), and
- said combined value (U_t) is provided on the basis of said plurality of step control values (u_t) and on the basis of a plurality of prior clock values (C_{t-1}).

4. An electrical device according to claim 2 or 3, characterized in that the number of said plurality of possible step patterns is 6, and in that

said pattern select signal (W_t) is derived as: $U_t + W_{t-1}$ MOD 6.

5. An electrical device according to claim 2 or 3, c h a r a c t e r i z e d in that the number of said plurality of possible step patterns is 6, and in that said pattern select signal (W_t) is derived as: $U_t + a_1 W_{t-1} + a_2 W_{t-2} + a_3 W_{t-3}$ MOD 6, where a_1, a_2, and a_3 are pre-selected constants.

6. An electrical device according to claim 2 or 3, c h a r a c t e r i z e d in that if the number of said plurality of possible step patterns is not a prime number, then said pattern select signal (W_t) is derived on the basis of said combined value (U_t) and said previously derived step pattern select signals (W_{t-1}) using a Chinese remaindering technique.

7. An electrical device according to claims 1 - 6, c h a r a c t e r i z e d in that said plurality of possible step patterns is: (0,0,1,1), (0,1,0,1), (1,0,0,1), (0,1,1,0), (1,0,1,0), (1,1,0,0).

8. An electrical device according to claims 1 - 7, c h a r a c t e r i z e d in that said device further comprises function generating means (203) adapted to calculate an output value (Out_t) as the sum of said plurality of sequence values (Z_t) MOD 2.

9. An electrical device according to claims 1 - 8, c h a r a c t e r i z e d in that said plurality of sequence generation means is m-sequence generators.

10. An electrical device according to any one of the previous claims, c h a r a c t e r i z e d in that said device is used in a mobile telephone.

11. A method of self clock controlled pseudo random noise (PN) sequence generation, comprising the step of:

- outputting a plurality of sequence values (Z_t) on the basis of a plurality of clock values (C_t),

c h a r a c t e r i z e d in that said method further comprises the step of:

- selecting a step pattern, providing said plurality of clock values (C_t), from a plurality of possible step patterns on the basis of a step pattern select signal (W_t).

12. A method according to claim 11, c h a r a c t e r i z e d in that said step pattern select signal (W_t) is derived on the basis of a combined value (U_t) and one or more previously derived step pattern select signals (W_{t-1}).

13. A method according to claim 12, c h a r a c t e r i z e d in that

- a plurality of step control values (u_t) is output, and
- said combined value (U_t) is provided on the basis of said plurality of step control values (u_t) and on the basis of a plurality of prior clock values (C_{t-1}).

14. A method according to claim 12 or 13, c h a r a c t e r i z e d in that the number of said plurality of possible step patterns is 6, and in that said pattern select signal (W_t) is derived as: $U_t + W_{t-1}$ MOD 6.

15. A method according to claim 12 or 13, c h a r a c t e r i z e d in that the number of said plurality of possible step patterns is 6, and in that said pattern select signal (W_t) is derived as: $U_t + a_1 W_{t-1} + a_2 W_{t-2}$

+ $a_3 W_{t-3}$ MOD 6, where a_1, a_2, and a_3 are pre-selected constants.

16. A method according to claim 12 or 13, c h a r a c - t e r i z e d in that said pattern select signal (W_t) is derived on the basis of said combined value (U_t) and said previously derived step pattern select signals (W_{t-1}) using a Chinese remaindering technique, if the number of said plurality of possible step patterns is not a prime number.

17. A method according to claims 11 - 16, c h a r a c - t e r i z e d in that said plurality of possible step patterns is: (0,0,1,1), (0,1,0,1), (1,0,0,1), (0,1,1,0), (1,0,1,0), (1,1,0,0).

18. A method according to claims 11 - 17, c h a r a c - t e r i z e d in that said method further comprises the step of calculating a value (Out_t) as the sum of said plurality of sequence values (Z_t) MOD 2.

19. A method according to claims 11 - 18, c h a r a c - t e r i z e d in that said plurality of sequence values (Z_t) is generated by a plurality of m-sequence generators.

20. A method according to claims 11 - 19, c h a r a c - t e r i z e d in that said method is used in a mobile telephone.